

UVULARIA (LILIACEAE) IN TEXAS

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ABSTRACT

This report documents the occurrence and distribution of the *Uvularia perfoliata* and *U. sessilifolia* in the state of Texas. A key to species, notes, distribution (including a map), and a list of exsiccatae are presented.

RESUMEN

Se cita y se documenta la presencia y distribución de *Uvularia perfoliata* y *U. sessilifolia* en el estado de Texas. Se presenta una clave de especies, notas, distribución (incluyendo un mapa), y una lista de exsicatas.

Uvularia is a small genus of five species native to eastern North America from Nova Scotia and southern Quebec south to Florida and westward to Texas and North Dakota (Wilbur 1963; Utech & Kawano 2002). The plants are rhizomatous perennial herbs with leafy, forked aerial stems. Leaves may be sessile or perfoliate. Plants normally have one or occasionally two greenish or yellow flowers that are campanulate in shape.

Our objectives are to document knowledge of the expanded distribution of *Uvularia sessilifolia* and *Uvularia perfoliata* in eastern Texas, summarize the known history of both species within Texas, and provide a means of identifying the species in the state. The paper is based upon recent field studies conducted in the eastern portion of the state and examination of herbarium specimens from selected herbaria (ASTC, BAYLU, & TEX).

KEY TO THE SPECIES OF UVULARIA IN TEXAS

1. Leaves rounded at the base, perfoliate _____ **1. *U. perfoliata***
1. Leaves narrowed at base, sessile, not perfoliate _____ **2. *U. sessilifolia***

1. *Uvularia perfoliata* L.

Uvularia perfoliata is distributed from New England and Ontario south and westward to Florida, Texas and Arkansas (Wilbur 1963, Utech & Kawano 2002). Within Texas, the species is known from Sabine, Nacogdoches, Shelby, and San

Augustine Counties (Fig. 1), a distribution that is basically contiguous with the distribution in Louisiana presented by Thomas & Allen (1993). The species occurs in mixed beech-maple series hardwood forests.

Brown (1972) first mentioned the occurrence of *Uvularia pefoliata* in Texas but provided neither specific location nor other documentation. Brown made trips to rich woodlands in eastern Texas and was generally consistent about making vouchers for his photos, but he either failed to do so in the case of *U. pefoliata* or the collection was lost or destroyed (Mark Mayfield, pers. comm.). The first documented record of this species in the state was Nixon and Damuth's (1987) report for Sabine County. In 1989, Bridges and Orzell presented an account of the species in Texas, citing seven collections, all from Sabine County. Turner et al. (2003), in the *Atlas of Vascular Plants of Texas*, illustrate the distribution of the species as being Sabine, Shelby, and St. Augustine counties. The species is reported as occurring in Nacogdoches County for the first time.

In addition to distinctive perfoliate leaves, the species is characterized by short 1 cm long rhizomes, scarious smooth-margined leaves, and terete hollow aerial stems. In the following list of exsiccatae, only one specimen per county is cited

Specimens examined: **Nacogdoches Co.:** 6 mi ENE of Cushing, upper spring creek drainage that drains into Barnes Lake, Apr 1994, *Singhurst 4912a* (BAYLU). **Sabine Co.:** 4.1 mi E of Geneva, 22 Mar 1985, *Nixon 14347* (ASTC). **San Augustine Co.:** 0.7 air mi NW of Black Ankle, Sabine National Forest, Tenaha Ranger District, Compartment 65, 12 Apr 1989, *Orzell 9209* (TEX). **Shelby Co.:** 0.3 air mi ESE of FM 2261 and FS Rd 106 jct in E Hamilton, Sabine National Forest, Tenaha Ranger District, Compartment 50, 12 Apr 1989, *Orzell 9261* (TEX).

2. *Uvularia sessilifolia* L.

The distribution of *Uvularia sessilifolia* extends from southern Canada (Ontario and Nova Scotia), south to Florida and west to Texas, Oklahoma, and North Dakota (Wilbur 1963; Utech & Kawano 2002). *Uvularia sessilifolia* has been documented in three locations in Newton County and one location in Jasper County (Fig. 1), approximately 280 km from the Cass County location cited in this paper, and 210 km from its nearest Louisiana record in Lincoln Parish (Thomas & Allen, 1993). The species occurs in moist hardwood and bottomland forests, but in more xeric sites than *U. pefoliata*. The distribution map of this species in Flora of North America (Utech & Kawano 2002) shows it occurring in extreme northeast Texas, perhaps Bowie or possibly Lamar and Red River counties (the small scale of the map prevents accurate determination of county), which all border Oklahoma and the Red River. Examination of specimens from these counties determined to be *U. sessilifolia* showed them to be immature and sterile specimens of *Polygonatum biflorum* (Walt.) Elliott. (Liliaceae), a species that is uncommon and sporadic where it occurs in east Texas. The Cass County specimen cited is the only report of the species outside of the longleaf pine region of southeast Texas (Newton and Jasper counties).

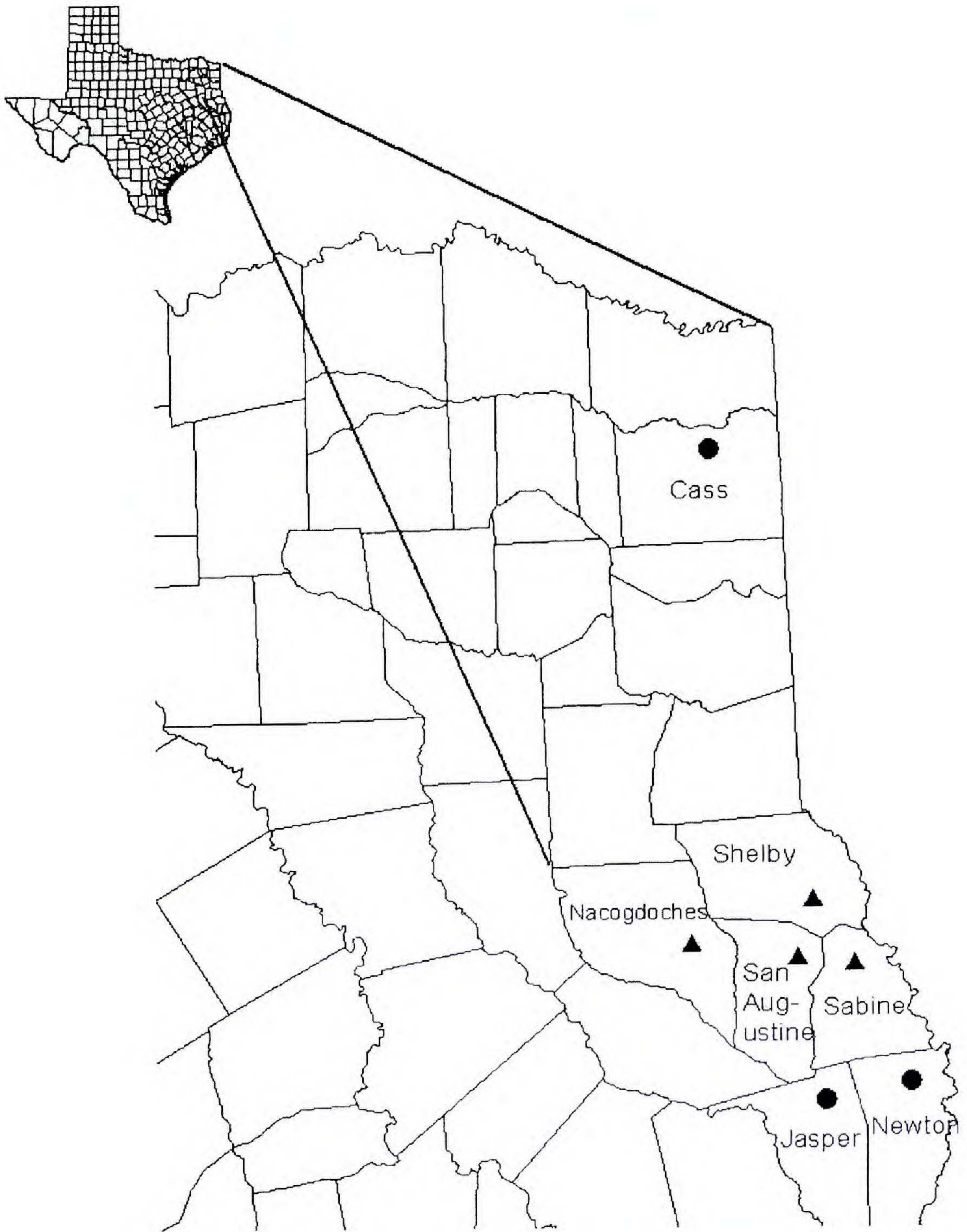


FIG. 1. Distribution of *Uvularia perfoliata* (triangles) and *U. sessilifolia* (circles) in Texas.

In addition to sessile non-perfoliate leaves, *Uvularia sessilifolia* can be distinguished from *U. perfoliata* by its longer rhizome of 10 cm or more in length, scarios margined leaves that are very finely serrulate, and aerial stems that are angled and solid. In the following citations of specimens, both the Cass county and Jasper County records are reported for the first time. Because of the

rarity of the species in the state, all collections are cited.

Specimens examined: **Cass Co.:** Atlanta State Recreational Area, base of Dogwood Trail at jct. of wood bridge, 9 Mar 2002, *Singhurst 11724* (BAYLU). **Jasper Co.:** Temple Inland Distinctive Site, Beef Creek, S of Rayburn Country, jct. of R255 and private forest road between Rayburn Country and Lake Sam Rayburn Dam, 1 mi S of forest road, 6 Mar 2002, *Singhurst 11213* (BAYLU). **Newton Co.:** Little Quicksand Creek on FM 1414 ca. 2.8 mi E of jct of Tex. Hwy 87 N of Newton, 3 Apr 1997, *Carr 15983* (TEX); Hickman Creek ca. 0.4 mi W of jct. with FM 645, 3 Apr 1998, *Singhurst 6591 & Watson* (BAYLU); Mack Creek, ca. 4 mi E of Newton on FM 1414, 4 Mar 2000, *Holmes 10795, Singhurst, & Caldwell* (BAYLU).

ACKNOWLEDGMENTS

We are grateful to Tom Wendt (TEX) for his assistance and Mark Mayfield (formerly of LSU, now of KSC) for information on the collections of Claire Brown. We also acknowledge the cooperation of the United States Army Corps of Engineers for granting access to public lands near Lake Wright Patman in Bowie and Cass counties. Richard Carter (VSC) and Heather White (BAYLU) reviewed preliminary versions of the manuscript.

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